

What is claimed is:

1. Wireless remotely controlled electronic equipment and the connecting devices for the same, said electronic equipment being accommodated in an insulation box, and said connecting devices for interconnecting an input power source and an output of said electronic equipment to load side, comprising:

said insulation box for providing electrical security with its insulated framework for said electronic equipment from an input side to an output side;

said connecting devices for connecting a power supply to said electronic equipment, and connecting the output therefrom to load sides:

a receiver unit included in said electronic equipment for receiving incoming wireless command signals from external transmitters; and

a function controller included in said electronic equipment for performing a variety of functional effects according to said wireless command signals received by said receiver unit;

wherein when said electronic equipment is energized by the power source, said receiver unit receives incoming wireless command signals from external transmitters and actuates said function controller to perform single or a variety of predetermined display effects accordingly.

2. The electronic equipment and the connecting devices of claim 1, wherein said insulation box is encircled by a standing wall along its edges, and several via holes are drilled through said wall for letting output and input component parts for the equipment to pass through.

3. The electronic equipment and the connecting devices of claim 1, wherein the inner cavity of said insulation box is parted with several pieces of barrier into a plurality of isolated chambers for accommodating and setting said equipment together with the component parts.
- 5 4. The electronic equipment and the connecting devices of claim 1, wherein a group of insulated electric conductors are used to connect the output and the input sides by piercing through said holes provided on the wall of said insulation box, one end of each said conductor is connected to said equipment, while the other end thereof is extended out of said insulation  
10 box.
5. The electronic equipment and the connecting devices of claim 1, wherein the end of said conductor in said insulation box is connected to the equipment with a terminal.
6. The electronic equipment and the connecting devices of claim 4, wherein  
15 the number of said electric conductors is determined by the number of electrical circuits for input and output.
7. The electronic equipment and the connecting devices of claim 1, wherein several insertion blades are used to input power from the power source, wherein the plurality of insulated electric conductors are used for output to  
20 the load by piercing through said via holes formed on the wall of said insulation box to connect to the external blades for power supply and load connection, whereas in said insulation box, said conductors are in contact with the contact portion of each equipment.
8. The electronic equipment and the connecting devices of claim 7, wherein  
25 the number of said electric conductors is determined by the number of

output electrical circuits.

9. The electronic equipment and the connecting devices of claim 1, wherein several insertion blades are employed to connect with input and output, the waist portions of said insertion blades are rested on, and fixed to the front wall of said insulation box, the tips of said insertion blades are emerged out of said insulation box to connect the power source, whereas the rear connector blades are contained in said insulation box, and one of them is connected with the load terminal near said blade hole, said connection blades are the electric connectors with their waist portions electrically in contact with said electronic equipment.
10. The electronic equipment and the connecting devices of claim 9, wherein the contact portions of said insertion blades are directly connected with said insulation conductors leading to load.
11. The electronic equipment and the connecting devices of claim 9, wherein several receptacle holes are provided at the contact portion of said equipment, said receptacle holes are aligned to preserved corresponding holes provided on said insulation box for insulation box for insertion of connector pins for supplying power to the connected load.
12. The electronic equipment and the connecting devices of claim 9, wherein said connecting device for output and input connection is provided with an interconnection blade interposed separately between a rear load connection blade and a front source blade and having a contact portion to connect the contact portion of said receiver unit and said function controller.
13. The electronic equipment and the connecting devices of claims 1 and 9, wherein said via holes opened through the rear wall of said insulation box

and said rear connector blades contained in said insulation box allow mutual mating with connecting devices of similar function forwards and backwards for performing a variety of functional operations.

14. The electronic equipment and the connecting devices of claims 1 and 9,  
5 wherein said via holes opened through the rear wall of said insulation box and said rear connector blades contained in said insulation box allow mutual mating with connecting devices of different function forwards and backwards for performing further various functional operations.

15. The electronic equipment and the connecting devices of claims 1 and 9,  
10 wherein said via holes opened through the rear wall of said insulation box and said rear connector blades contained in said insulation box allow insertion of, and mating with, any conventional plug for supplying power to the land.

16. The electronic equipment and the connecting devices of claims 1 and 9,  
15 wherein a discrimination means is provided for refusing incompatible mating of said receiver unit or said function controller, or in case, certain restriction of use is necessary.

17. The electronic equipment and the connecting devices of claims 1 and 16,  
20 wherein said discrimination means is provided in the form of tenon and mortise joint by forming several stub tenons and several slot mortises at both sides of said connecting device, each of said mortise slot is interposed between two adjacent stub tenons, if said tenon and mortise joint provided for a connecting device is completely coincident with that formed in another connecting device in size, position, and number, the two  
25 connecting devices are compatible and allowed to mate with each other, if

not, they are considered to be incompatible.

18. The electronic equipment and the connecting devices of claim 1, wherein said receiver unit is essentially composed of an IC unit and some other auxiliary electric components.

5 19. The electronic equipment and the connecting devices of claim 18, wherein said receiver unit is able to receive a power supply and external wireless command signals so as to produce and transfer predetermined functional signals.

10 20. The electronic equipment and the connecting devices of claim 18, wherein said receiver unit is able to adjust, change, and control the intensity, quantity, and quality of said command signals, or switch over said command signals.

15 21. The electronic equipment and the connecting devices of claims 18 and 19, wherein a functional portion of said receiver unit is emerged out of said preserved via holes on the wall of said insulation box so as to facilitate receiving external command signals.

22. The electronic equipment and connecting devices of claim 1, wherein said receiver unit has a contact portion to contact said connecting device and said function controller.

20 23. The electronic equipment and connecting devices of claim 1, wherein receivable wireless command signals for said receiver unit include infrared ray waves or microwaves.

25 24. The electronic equipment and connecting devices of claim 1, wherein said function controller is essentially composed of an IC unit and some other auxiliary electronic components.

25. The electronic equipment and connecting devices of claim 24, wherein said IC unit is able to produce the predetermined functions, or has the ability of transmitting command signals.
- 5 26. The electronic equipment and connecting devices of claim 24, wherein said auxiliary electronic components include a rectifier, a capacitor with a resistor, a voltage stabilizing diode, a SCR or a switch so as to perform variation, adjustment, stabilizing, promotion, initiation, and protection of said equipment.
- 10 27. The electronic equipment and connecting devices of claim 1, wherein said function controller has a predetermined synchronous control ability.
28. The electronic equipment and connecting devices of claim 27, wherein said synchronous control ability of said function controller is produced by combination of a quartz oscillator, a capacitor, and a resistor, and said combination unit is connected with said IC unit to form an oscillation circuit for providing a reference frequency for synchronous operation to  
15 operate and attain the predetermined effect.
29. The electronic equipment and connecting devices of claim 1, wherein said function controller has contact portion which is in contact with said connecting device or said receiver unit.
- 20 30. The electronic equipment and connecting devices of claim 1, wherein said receiver unit and said function controller are integrally conjoined in one piece.
31. The electronic equipment and connecting devices of claims 1 and 30, wherein said receiver unit and said function controller respectively have  
25 their own component parts which are respectively assembled on individual

PCB, or share the same PCB.

32. The electronic equipment and connecting devices of claim 31, wherein said PCB is preserved a contact portion to connect the other connecting devices.

33. The electronic equipment and connecting devices of claims 1 and 30, wherein said receiver unit and said function controller are respectively packed with an insulation material to form an individual package, or combined to integrally packed in one piece with an insulation material.

34. The electronic equipment and connecting devices of claim 33, wherein said insulation package emerges an exposed contact portion to connect other connecting devices.

35. The electronic equipment and connecting devices of claims 31 and 33, wherein said receiver unit and said function controller are detachably installed in said insulation box for facilitating replacement.

36. The electronic equipment and connecting devices of claim 35, wherein said insulation box is provided with an upper openable slide lid whose position is appropriately in match with the reserved blade holes on the wall of said insulation box so as to facilitate replacement of the equipment.

37. The electronic equipment and connecting devices of claim 1, wherein an inner entrainer is provided in said insulation box for pre-assembling component devices and inserting the entire unit into said insulation box.

38. The electronic equipment and connecting devices of claim 37, wherein several barriers are provided on said inner entrainer to divide the inner cavity of said insulation box into several isolated chambers for settling said component devices.

39. The electronic equipment and connecting devices of claims 36 and 37,

wherein the portions of said component devices installed on said inner entrainer are appropriately in match with said reserved blade holes on the wall of said insulation box and said upper openable slide lid so as to facilitate replacement of said component devices.

- 5      40. The electronic equipment and connecting devices of claim 1, wherein said receiver unit and said function controller reserve several contact portions for directly connecting with said insulation conductors to extend said insulation conductors out of said insulation box to the load.
- 10      41. The electronic equipment and connecting devices of claims 1 and 40, wherein said receiver unit and said function controller reserve several receptacle terminals in said insulation box at the positions in match with the blade holes provided on the wall of said insulation box for allowing insertion of plugs leading to the load terminals.
- 15      42. The electronic equipment and connecting devices of claim 41, wherein said receptacle terminals are configured in a cylinder shape, while said plug terminals are configured in a pin shape.
- 20      43. The electronic equipment and connecting devices of claim 1, wherein a fusing device is installed between said power input connecting device and said receiver unit, or between said power input connecting device and said function controller for protecting the circuit from overcurrent with a preset limit of current carrying capacity.
- 25      44. The electronic equipment and connecting devices of claim 43, wherein said fusing device has a contact portion for connecting with a contact portion of said receiver unit or said function controller.
45. The electronic equipment and connecting devices of claim 43, wherein said



fusing devices is concealed in said insulation box and located in the position matching with said blade holes reserved on the wall of said insulation box, or affixed to said upper openable slide lid for facilitating replacement.

- 5      46. The electronic equipment and connecting devices of claim 1, wherein said receiver unit is able to receive signals sent from existing wireless signal transmitters.
- 10      47. The electronic equipment and connecting devices of claims 46, wherein said existing wireless signal transmitters are a computer, a wireless mouse, a wireless keyboard, a wireless internet, and its distributor, a wireless internet card, and a cellular phone.
48. The electronic equipment and connecting devices of claims 1 and 46, wherein said receiver unit has an encoder and a decoder.
- 15      49. The electronic equipment and connecting devices of claim 1, wherein the load connected to the output terminal of said connecting devices include electrical and electronic equipment and devices, or a plurality of light strings connected in series, parallel, or series-parallel.
- 20      50. Wireless remotely controlled electronic equipment and the connecting devices for the same, said electronic equipment being accommodated in an insulation box, and said connecting devices for interconnecting an input power source and an output of said electronic equipment to load side, comprising:
- 25      said insulation box encircled by a standing wall along its front, rear and side edges, the inner cavity of said insulation box being parted into several isolated chambers with several barriers; and several insertion holes being

reserved at front, rear, and side wall;

said source input side connecting device being formed of a plurality of contact blades inserted into said front blade holes and fixed thereat, wherein one end of said blade is extended out of said insulation box to connect with the power supply source, while the other end thereof has a contact portion;

said receiver unit being composed of an IC unit or other auxiliary electronic components to receive external incoming wireless command signals and produce a predetermined function, wherein said receiver unit has a contact portion and is set in an isolated chamber of said insulation box;

said function controller being composed of an IC unit or other auxiliary electronic components to produce a predetermined functional effect or deliver command signals, wherein said function controller has a contact portion and is set in an isolation chamber of said insulation box;

said load output side connecting device being formed of a plurality of insulation electrical conductors, wherein said conductors are rested in the via holes provided at the rear wall of said insulation box;

one end of each said conductors has a connector terminal placed in said insulation box, while the other end thereof is extended out of said insulation box to connect with the load;

wherein each said contact portion is connected to the circuit according to its functional effect, and the insertion blades are connected to the power source, when said receiver unit receives the extraneous incoming wireless command signal; said receiver unit actuate said function controller to start

working with a predetermined single or a variety of functions which are transferred to the load terminals for the load to display predetermined functional operations.

51. The electronic equipment and connecting devices of claim 50, wherein the  
5 contact portions of said insertion blades are directly connected with said insulation conductors leading to load.

52. The electronic equipment and connecting devices of claim 50, wherein said  
connecting device for output and input connection is provided with an  
interconnection blade interposed separately between a rear load connection  
10 blade and a front source blade and having a contact portion to connect the  
contact portion of said receiver unit or said function controller.

53. The electronic equipment and connecting devices of claim 50, wherein said  
via holes opened through the rear wall of said insulation box and said rear  
connector blades contained in said insulation box allow mutual mating with  
15 connecting devices of similar function forwards and backwards for  
performing a variety of functional operations.

54. The electronic equipment and the connecting devices of claim 50, wherein  
said via holes opened through the rear wall of said insulation box and said  
rear connector blades contained in said insulation box allow mutual mating  
20 of connecting devices of different function forwards and backwards for  
performing further various functional operations.

55. The electronic equipment and the connecting devices of claim 50, wherein  
said via holes opened through the rear wall of said insulation box and said  
rear connector blades contained in said insulation box allow insertion of,  
25 and mating with, any conventional plug for supplying power to the load.

56. The electronic equipment and the connecting devices of claim 50, wherein receivable wireless command signals for said receiver unit include infrared ray waves or microwaves.

57. The electronic equipment and the connecting devices of claim 50, wherein  
5 said receiver unit and said function controller are integrally conjoined in one piece.

58. The electronic equipment and the connecting devices of claim 50, wherein said receiver unit and said function controller are detachably installed in said insulation box for facilitating replacement.

10 59. The electronic equipment and the connecting devices of claim 50, wherein said receiver unit and said function controller reserve several contact portions for directly connecting with said insulation conductors to extend said conductors out of said insulation box to the load.

60. The electronic equipment and the conducting devices of claim 50, wherein  
15 a fusing device is installed between said power input connecting device and said function controller for protecting the circuit from overcurrent with a preset limit of safety current carrying capacity.

61. Wireless remotely controlled electronic equipment and the connecting  
20 devices of the same, said electronic equipment being accommodated in an insulation box, and said connecting devices for interconnecting an input power source and an output of said electronic equipment to load side comprising:

Said insulation box encircled by a standing wall along its front, rear and  
25 side edges, the inner cavity of said insulation box being parted into several isolated chambers with several barriers and several insertion holes being

reserved at front, rear, and side wall;

said connecting device being formed of a plurality of contact blades with their waist portions inserted and rested on said front holes, the front blades being extended out of said insulation box for connecting to a power source, while rear connecting blades being placed in said insulation box and extending their rear ends near said rear insertion holes of said insulation box to connect with the load side insertion blades, wherein their waist portions serve as contact portions;

a receiver unit belonging to a part of said electronic equipment being composed of an IC unit or other auxiliary electronic components to receive external incoming wireless command signals and produce a predetermined function, wherein said receiver unit has a contact portion and set in an isolated chamber of said insulation box;

a function controller belonging to a part of said electronic equipment being composed of an IC unit or other auxiliary electronic components to produce a predetermined functional effect, or deliver command signals, wherein said function controller has a contact portion and is set in an isolation chamber of said insulation box;

wherein each of said contact portions connected with electrical circuits in the manner that insertion blades are connected with the power source, when said receiver unit receives external incoming wireless command signals, said signals are transferred to said function controller to initiate a predetermined single or a variety of functional operations which are transmitted to connected load from the output terminal so as to cause the load to display a predetermined variation effect.

62. The electronic equipment and connecting devices of claim 61, wherein the contact portions of said insertion blades are directly connected with said insulation conductors leading to load.

63. The electronic equipment and connecting devices of claim 61, wherein said connecting device for output and input connection is provided with an interconnection blade interposed separately between a rear load connection blade and a front source blade and having a contact portion to connect the contact portion of said receiver unit or said function controller.

64. The electronic equipment and connecting devices of claim 61, wherein said via holes opened through the rear wall of said insulation box and said rear connector blades contained in said insulation box allow mutual mating with connecting with connecting devices of similar function forwards and backwards for performing a variety of functional operations.

65. The electronic equipment and connecting devices of claim 61, wherein said via holes opened through the rear wall of said insulation box and said rear connector blades contained in said insulation box allow mutual mating with connecting devices of different functions forwards and backwards for performing further various functional operations.

66. The electronic equipment and connecting devices of claim 61, wherein said via holes opened through the rear wall of said insulation box and said rear connector blades contained in said insulation box allow insertion of, and mating with, any conventional plug for supplying power to the load.

67. The electronic equipment and connecting devices of claim 61, wherein receivable wireless command signals for said receiver unit include infrared ray waves or microwaves.

68. The electronic equipment and the connecting devices of claim 61, wherein said receiver unit and said function controller are integrally conjoined in one piece.

69. The electronic equipment and the connecting devices of claim 61, wherein said receiver unit and said function controller are detachably installed in said insulation box for facilitating replacement.

70. The electronic equipment and the connecting devices of claim 61, wherein said receiver unit and said function controller reserve several contact portions for directly connecting with said insulation conductors to extend said conductors out of said isolation box to the load.

71. The electronic equipment and the connecting devices of claim 61, wherein a fusing device is installed between said power input connecting device and said function controller for protecting the circuit from overcurrent with a preset limit of safety current carrying capacity.